DOCUMENT RESUME

ED 349 757 EC 301 503

AUTHOR	Johnson, David R.; And Others
TITLE	Going to Work: Profiles in Supported Employment.
INSTITUTION	Minnesota Univ., Minneapolis. Inst. on Community Integration.
SPONS AGENCY	Minnesota State Dept. of Jobs and Training, St. Paul. Div. of Rehabilitation Services.
PUB DATE	[87]
CONTRACT	21200-22509/22510
NOTE	41p.
AVAILABLE FROM	Institute on Community Integration, University of Minnesota, 109 Pattee Hall, 150 Pillsbury Dr., S.E., Minneapolis, MN 55455.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Adults; Employment Opportunities; Employment Programs; *Job Training; *Outcomes of Treatment; *Program Effectiveness; Program Implementation; Secondary Education; *Severe Disabilities; *Supported Employment; *Vocational Rehabilitation
IDENTIFIERS	Minnesota

ABSTRACT

These profiles of Minnesota individuals with severe disabilities were developed as part of an evaluation of the impact of supported employment on their lives. The profiles describe individuals who have severe disabilities, who receive assistance from a wide variety of programs, and who were evaluated through both qualitative and quantitative procedures. They illustrate a number of approaches to developing and sustaining supported employment in a variety of settings. The agencies working with persons with severe disabilities had been receiving assistance from a state demonstration program begun in 1985: the Minnesota Supported Employment Project (MnSEP). The eight profiles describe supported employment opportunities offered through a day training and habilitation program, a secondary special education program, a regional treatment center, and a rehabilitation facility. The report concludes that the underlying theme across these profiles is the simple yet powerful idea that persons with severe disabilities can and should have a chance to develop a greater sense of themselves through their vocational experiences in their home communities. Appendixes describe the evaluation process in more detail; outline measures used in data collection, in the areas of demographics, staff behavior, value-based service indicators, adaptive behavior, problem behavior, social behavior, and attitudes; and list eight references. (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED340757

Going to Work

Profiles in Supported Employment

By David R. Johnson, Troy Mangan, Jeff Boevers and Ron Erickson

Institute on Community Integration (UAP)
University of Minnesota
Division of Rehabilitation Services
Minnesota Department of Jobs and Training

EC 301503

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
R. Bruininks

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

This project was supported by Grant No. 21200-22509/22510 to the University Affiliated Program on Developmental Disabilities from the Minnesota Division of Rehabilitation Services, Department of Jobs and Training. Points of view or opinions do not necessarily represent official positions of the Minnesota Division of Rehabilitation Services or the Department of Jobs and Training.

To order additional copies contact the Institute on Community Integration, University of Minnesota, 109 Pattee Hall, 150 Pillsbury Drive S.E., Minneapolis, Minnesota 55455, (612) 624-4512.

Table of Contents

Introduction 1

Profiles

1. Supported Employment Through a Day Training & Habilitation Program
   - Charlie 2
   - Kim 6
2. Supported Employment Through a Secondary Special Education Program
   - Aaron 10
   - Dustin 13
3. Supported Employment Through a Regional Treatment Center
   - Stephen 15
   - Louis 19
   - Bruce 22
4. Supported Employment Through a Rehabilitation Facility
   - Greg 24

Conclusion 28

Appendix

1. Evaluation Process 29
2. Methods and Materials 32
3. References 36

Acknowledgments

Project staff wish to thank the following individuals for the invaluable time and energies expended thoughout all phases of this effort. These individuals served as contributors, co-authors and editors of the profiles found within this manuscript:

Sam Nygren, Jerry Mauer, and various staff members
Moose Lake Regional Treatment Center, Moose Lake, Minnesota

Bob Bathke, Marie Rutz, and Lynn Nettifee
Dakota, Inc., Crystal, Minnesota

Kathy Kittel and Amy Hartl
Anoka-Hennepin School District, Anoka, Minnesota

The family of Aaron Pajak
Ham Lake, Minnesota

The family of Dustin Joslyn
Anoka, Minnesota

Don Lavin and Lynn Noren
Rise, Inc., Spring Lake Park, Minnesota

Gayle Martinez
Formerly of Minnesota Mainstream, Spring Lake Park, Minnesota

Ben Brainerd
Lavoptik, Inc., St. Paul, Minnesota

Karl Kuester
Minnesota Division of Rehabilitation Services

Dan Baker
University of Minnesota, Minneapolis, Minnesota

Introduction

During the past decade there has been increased attention to policies, research, and practices in community employment of persons with disabilities. One of the more recent and now widely-used employment models is known as *supported employment.* In supported employment, persons with disabilities are provided training and support services so that they may engage in meaningful, compensated work in normal employment settings alongside persons without disabilities. This is in contrast to the practice of employment in segregated settings long known as *sheltered* employment.

In 1985 the state of Minnesota began a demonstration program* to develop and evaluate innovative supported employment strategies along with policy and structural changes in employment services. This program resulted in formation of the Minnesota Supported Employment Project (MnSEP).**

The purpose of MnSEP was to assist agencies that had little experience in providing supported employment for persons with severe disabilities. The Institute on Community Integration, University of Minnesota, was contracted by MnSEP to evaluate the impact of movement into supported employment on the lives of a select group of individuals with severe disabilities. The profiles in this booklet are drawn from that evaluation process (see Appendix 1 on page 29 for full evaluation procedures.)

The profiles are notable in that the individuals featured have severe disabilities, receive assistance from a wide variety of programs, and were evaluated through both qualitative and quantitative procedures. They illustrate a number of approaches to developing and sustaining supported employment for individuals with severe disabilities in a variety of settings. For some of these individuals data collection occurred prior to placement in supported employment and one year after placement. In addition, their job coaches also recorded data on job performance, pay rate, and frequency of problem behaviors. For other individuals in the evaluation, a retrospective approach was taken in collecting information from the individual, family members, case managers, teachers, job coaches, and other informed parties.

It is hoped that adult service agencies and others will find these profiles useful in their efforts to establish community employment for persons with disabilities.

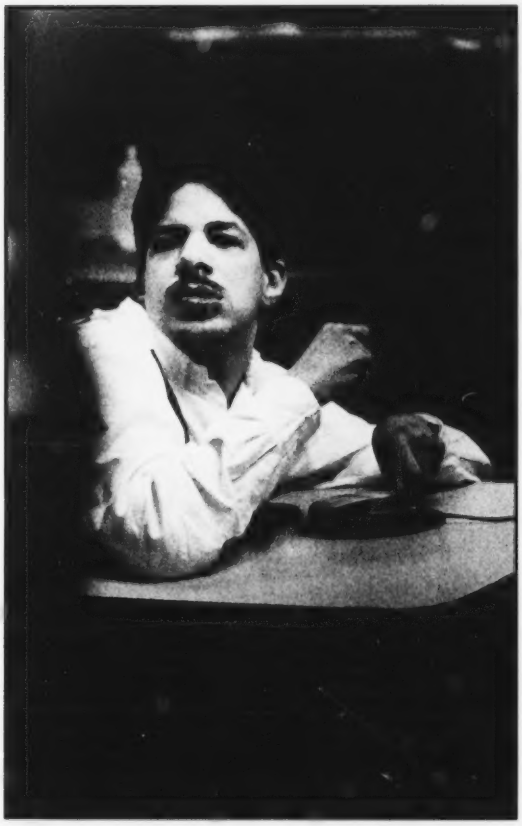
* Funding was provided through a five-year National Supported Employment Demonstration Program implemented by the U.S. Department of Education's Office of Special Education and Rehabilitation Services (OSERS).

** This program was a collaborative effort of the Minnesota Governor's Planning Council on Developmental Disabilities, the Minnesota Department of Human Services, the Unique Learner Needs Section of the Minnesota Department of Education, and the state's Division of Rehabilitation Services.

1. Profiles:

Supported Employment Through a Day Training & Habilitation Program.

The challenges faced by persons with disabilities can often pose unique problems when providing vocational services for such individuals. The stories that follow highlight the successful employment of two persons with cognitive and physical disabilities. They are employed through the efforts of Dakota, Inc., a day training and habilitation program located in Crystal, Minnesota, a Minneapolis suburb.



■ Charlie

This past June marked the third year anniversary of Charlie's supported employment at a Twin Cities' insurance company, employment made possible through the combined efforts of his day training and habilitation program (DT&H), the Division of Rehabilitation Services, the Minnesota Supported Employment Project (MnSEP), and his employer.

Background

Since the age of 12, Charlie has lived in a residential facility located in the Minneapolis-St. Paul metropolitan area. Formerly he lived with his parents, although temporary out-of-home placements had been occasionally enlisted. At 21, Charlie graduated from an intermediate school district and began the day training and habilitation program. He has severe mental retardation, cerebral palsy, epilepsy, and is legally blind.

Charlie is an effective communicator. He can use one- or two-word phrases and frequently requests access to recreation and leisure activities. He will also ask for food and indicate when he needs to use the restroom, and respond appropriately to a variety of verbal directions and questions.

Prior to supported employment Charlie did not have any vocational goals or activities. His day placement goals at that time were to increase expressive communication, use an Adaptive Learning Device (ALD) to activate leisure items, and improve and maintain muscle tone.

Supported Employment Development and Placement

Several major obstacles were overcome on the way to Charlie's employment. At the time of his placement, agency personnel at his DT&H had little experience with supported employment for persons with very severe disabilities. Technical assistance was provided in general supported

employment strategies and job coaching to support his placement. MnSEP was able to address these needs through consultation from state agency personnel and other consultants.

Charlie's medical needs, including the use of a wheelchair, meant that he needed a safe, comfortable, indoor work environment. In the past, health problems had kept him home for weeks at a time. He needed to be in some type of group employment setting (such as an enclave) where other workers could, and would, do his job if he was not able to come to work. An individual placement would likely be lost the first time he was ill for an extended period of time. The most critical situation for Charlie was how to successfully involve him in long-term community employment despite the severity of his disability and many accompanying needs for job support and accommodations.

Another potential barrier was how to deal with stigmatizing attitudes held by coworkers toward persons with severe disabilities. The support staff addressed this problem by gradually increasing contact between Charlie and other company workers without disabilities. Charlie, the other supported employees, and the job coaches learned general safety and evacuation procedures from other employees of the company. This provided the dual benefit of addressing potential safety problems and, in return, providing an inservice for the regular work force on handicapping conditions.

Supported Employment Position

Currently, Charlie works three hours per day, five days a week, operating a stapling machine. His responsibility is to help collate insurance policies using a stapling machine controlled by a circular electronic switch. Initially, the stapling machine was activated when a job coach or coworker slid the insurance policy under the machine and verbally cued Charlie to hit the switch. This skill was learned in just a few days and verbal cues were faded. After about a year another adaptive device, a sliding tray, was introduced so he could both slide the policy under the machine and staple the pages together. Along with his new responsibilities, he also had a new vocational goal. The objective was to increase the accuracy of his response to the cue, "Hit the switch."

As a result of his job there are also many opportunities for social rewards. His work station is located next to a heavily used hallway and is staffed by six other supported employees from his DT&H, a job coach, and an assistant. Charlie works side-by-side with 10 employees without disabilities. He has many brief exchanges with people as they walk by and offer quick greetings. He also has increased interactions as a result of his need for physical assistance and cooperation with the job tasks. This has not only resulted in increased social interaction, but also in a drop in negative behaviors, which in the past were used to attract attention.

Lunchtime also provided both challenges and opportunities for social integration. Job support staff wanted Charlie to eat as independently as possible in the company dining room. While this facilitated independence, staff were concerned that the occasional spilling of food would inhibit other employees from interacting with him. They met this challenge by

using normal seating arrangements, removing his bib, and keeping him and his tray continuously cleared of spilled food.

Supported Employment Outcomes

• Vocational Skills/Productivity

During a one-year period, commencing at six months after his placement into supported employment, Charlie earned as much as $19.88 a month. His productivity, measured against a set number of units, reached a high of 67%. When the standard was changed to the rate produced by a worker without disabilities, productivity was measured at 20% to 30%. His limited range of motion made it difficult to increase his productivity. In order to increase his productivity and wage, the job support staff decided to do some job modifications by adding the sliding tray as another job component.

It took Charlie several months to adjust to the presence of this additional adaptive device. Within one month he was able to tolerate the tray for 10 minutes. In another month he was able to tolerate it for an hour, and by the end of the third month he was able to work for three hours. As a consequence, his productivity and hourly wage decreased during the period of adjustment. The support staff assumed that his increased production would soon make up for the initial loss of wages during the introduction of the tray.

• Staff Behavior

There were several interesting changes in staff behavior towards Charlie from before employment to one year after employment. The proportion of staff time spent on custodial care (e.g., taking him to the restroom) increased almost 50%. This was most likely the result of two factors: 1) the bathrooms at work were farther away and less well-equipped than the bathrooms at the DT&H; and 2) at the DT&H, staff attention had to be divided among many people who had as many or even more custodial care needs. In a normalized, community work setting, staff could spend more time with him, giving more individualized care, and better focus on teaching him self-care skills.

The proportion of time staff spent on recreation and social interaction with Charlie almost tripled, from 7.2% to 20.4%. There were several reasons for this. The tasks performed by the enclave were highly cooperative, with each person depending on their work partners. His work peers had better communication and social skills than the individuals with whom Charlie spent time at the DT&H. Also influential was the location of the work station. Situated by a heavily-used hallway, the site created innumerable opportunities for other employees to walk by and talk to the members of the enclave. These factors did not directly affect the behavior of the job coaches, but the product of these factors, a highly social environment, influenced everyone's behavior.

Not surprisingly, the time staff spent "not engaged" with Charlie decreased from 77.0% to 59.2%. However, the time staff members spent in training also decreased from 6.3% to 2.1%. This decrease appeared directly attributable to his length of employment. His work responsibilities

were easily defined and quickly acquired. The job support staff had considerable experience working with him and had clear expectations of him. This experience made them much more efficient when he needed instruction. Charlie also worked with a skilled peer who was able to prompt and reinforce him when necessary.

- Social Behavior

His social behavior increased dramatically. His overall frequency of interaction increased about 145%, going from an average of 14.1 social contacts an hour to 34.5 an hour. His positive initiations and responses to staff, peers, and other persons without disabilities also increased, while negative initiations to staff decreased. These findings are probably the result of a more social work environment, Charlie's need for additional physical assistance caused by the demands of a new setting, and a job that required initiations and responses for successful completion.

Charlie had many opportunities to interact with other company co-workers, including many brief exchanges when people would walk by and offer a quick greeting. The drop in negative behaviors is best explained by the fact that he had many more opportunities for interaction and no longer needed inappropriate behaviors to attract attention. Negative behaviors on the worksite also had the natural consequence of drawing undesired attention to himself.

- Attitudes/Other Outcomes

Job support staff, coworkers, parents, and project staff had many favorable impressions of Charlie and his work experience. Coworkers became interested in Charlie and were assertive in their requests to interact with him throughout the day. Job support staff felt that the work environment had increased his ability to initiate appropriate interactions and made him more enthusiastic about the day program. They felt that Charlie liked his job, had learned new skills, was maintaining a neater appearance, had increased his self-confidence, and was treated in a more adult manner by his family, friends, and agency staff.

Prior to placement there were many issues that staff thought would be barriers to Charlie's successful employment. Concerns were raised regarding his personal safety, the potential for abuse or neglect, and his seizure activity, to name a few. Once placement occurred these barriers proved to be insignificant.

Supported Employment Future Needs

There are several obstacles to Charlie staying in supported employment. His medical problems make his job attendance and productivity variable. For him to continue in supported employment, he will continue to need medical and occupational therapy services, including assistance with positioning and continued use and refinement of ALD's. He must also have a safe and comfortable work-site, a job coach, and an enclave placement. The on-going attempts to increase his integration also need to continue.

Kim

One of Charlie's fellow workers at the insurance company is 27-year-old Kim. Her job is to help collate insurance policies using a circular electronic switch that controls the stapling machine.

Background

Kim lived with her family until she was nine years old. She was moved to a residential facility outside of Minnesota and stayed there until she was 14, when she was moved to her current residential facility in the Minneapolis-St. Paul metropolitan area. At 21, Kim graduated from an intermediate school district and about six months later started at a day training and habilitation program (DT&H) in the same area. Kim uses a wheelchair and has severe mental retardation and severe motor limitations due to cerebral palsy. She expresses herself by using a communication board, motioning "yes" and "no," eye-pointing, and general vocalizations. She uses a buzzer to initiate the use of her communication board, which has color-coordinated general categories and specific pictures and symbols in each category. Kim eye-gazes to a specific category (e.g., things to eat/drink, people, things to see and hear) and then picks a picture from that category. Staff check her eye-gaze by asking her if that is the symbol she wants and Kim replies by either "yes" (her head is up and she smiles) or "no" (her head drops down and she frowns). Kim has good receptive language skills.

Prior to the start of her supported employment job, Kim had little vocational experience. At the DT&H she participated in can crushing by either picking up cans or sliding them into a receptacle after it had been crushed. Her day placement goals were to improve her communication and self care skills, and to increase her tolerance of gross motor activities.

Supported Employment Development and Placement

Kim's low verbal abilities necessitated the use of a special communication device to assist with initiations and responses on her job. Another challenge was her limited range-of-motion (she can only use her left arm) which limited the speed and accuracy of her work. Passive range-of-motion exercises were regularly used at the DT&H and on the job to keep her motion as free as possible. An Adaptive Learning Device (ALD) that connected to the switch on the machine was calibrated for Kim and made her job much easier.

Another challenge was the need for social interaction between Kim and other employees of the company. Job support staff addressed this problem by trying to increase contact between Kim and other company employees. Job support staff also presented an inservice on disabilities for the nondisabled workers.

BEST COPY AVAILABLE

Because Kim's medical needs made it necessary for her to eat at the DT&H before going to work, she wasn't always able to take advantage of social opportunities available in the work-site lunchroom. To make up for this, she was regularly taken to the company store to make a purchase and increase her opportunities for interaction. Staff also made an effort to introduce her to other workers throughout the day.

Supported Employment Position

Kim works two hours a day, five afternoons a week, operating a stapling machine at an insurance company in the metropolitan area. Her work station is located next to a busy hallway and is staffed by six other persons from her agency, a job coach, and an assistant. She works side-by-side 10 employees without disabilities.

Kim's job is to help collate insurance policies using a circular electronic switch that controls the stapling machine. Initially, her job coach or another worker slid the policies under the machine and then verbally cued her to hit the switch. She learned this skill quickly and the verbal cue was faded out.

Supported Employment Outcomes

- Vocational Skills/Productivity

During her first year of employment Kim earned up to $6.48/month. Her productivity ranged from 10% to 17% of "normal" work rates. The enclave job was piece work, with a direct link between wage and number of units. Her limited range of motion made it difficult to increase productivity, since she could not physically improve the rate at which she hit the switch.

Job support staff have reported that there seems to be an interaction between Kim's productivity, medical problems, and coworkers present. When she is working with someone she prefers, her productivity increases. One way to reduce job coach involvement has been to continue to shift the responsibility of prompting and reinforcing to her coworkers. This helps to reduce the amount of job coach time Kim needs and ensures that she continues to receive the individualized attention she needs during training.

- Staff Behavior

There were significant changes in staff behavior towards Kim from prior to employment to one year after employment began. The proportion of staff time spent on overall custodial care decreased from 13% to 11.3%. One explanation for this is that at her DT&H there were many people who had numerous custodial care needs, but at work there was no one with greater needs. Therefore, staff had the time to teach her self-care skills, rather than doing everything for her.

The increase in time spent on self-care training is likely reflective of her job requirements, medical needs, and Kim's lack of adaptive skills and exposure to systematic training. Of the enclave members, she required the most training. Repeated trials were required many times throughout the day. Her vocational skills continue to improve, but given the combination

of work and personal factors, she will continue to require regular prompting and reinforcement on the job site.

Finally, the proportion of time staff spent on recreation and social interaction with Kim increased and, not surprisingly, the proportion of time staff spent "not engaged" with her decreased dramatically.

- Social Behavior

Prior to placement, Kim was offering only one positive response to staff during her six-hour program day, a rate of 0.18/hour. One year after placement she was making an average of three positive initiations (0.5/hour) or 12 positive responses to staff (2.0/hour) during the six-hour day.

These changes resulted in creating a more social environment and a job that requires initiations and responses for successful completion. The tasks the enclave were doing were highly cooperative and each person had to depend on their work partners. Kim's peers had better communication and social skills than the people she spent time with at the DT&H. Also, the work station was located on a well trafficked hallway, so there were always coworkers walking by to talk with during the workday.

- Attitudes

The staff attitudes questionnaire reflected positive changes regarding the role of work in Kim's life. Prior to placement the staff commented that they mildly agreed with the statement: "Work should be a normal part of life for Kim." One year after placement they strongly agreed with this statement. Staff interest in her job satisfaction increased and her need to have increased social contact decreased. Staff concern about the quality of Kim's job training and the availability of appropriate jobs with interested employers increased, while their concern about frustration experienced by her decreased.

- Program Goals

Four new supported employment goals were included in Kim's Individual Service Plan: a communication goal in which she chose the peer she wanted to work with by eye-gazing to the person or a picture of the person; a communication goal in which she chose a topic (either feelings, people, work, leisure, or positioning) to talk about with staff; a production goal in which she used an ALD switch to increase her productivity to 20%; and a money skills/community living goal in which she took her paycheck to the company store and selected and paid for what she wanted.

- Other Outcomes

Job support staff, coworkers, and Kim's parents had some insightful impressions of her and the work experience. Most respondents felt that she had been offered ongoing exposure to an integrated environment which had more opportunities for integration than at the DT&H. They also felt her independence and work attitude had improved.

Future Supported Employment Needs

There are several obstacles to Kim staying in supported employment. Her medical needs make her job attendance and productivity variable. For Kim to continue in supported employment, she will continue to need medical services, a safe and comfortable work-site, a job coach, and enclave work opportunities. To improve and expand her productivity and general adaptive skills, she will also need more ALDs.

2. Profiles:

Supported Employment Through Secondary Special Education Programs.

Successful supported employment is not limited to adults. Students of secondary special education programs throughout Minnesota are currently provided a variety of community training and employment alternatives, including supported employment, to assist them in their transition from school to adult life. The following profiles describe the transitional work experiences of two students from the Anoka-Hennepin Independent School District in Anoka, Minnesota.

■ Aaron

Four years ago Aaron's parents and instructors began exploring vocational opportunities for him. This exploration has lead Aaron to his current job stocking shelves in a local supermarket.

Background

Aaron is a 18-year old young man who lives with his parents and attends Anoka-Hennepin School District No. 11. He enjoys bowling, swimming, eating, and going out, especially to hardware or building supplies stores. He is described as being "very social," and especially enjoys the company of peers without disabilities. Because he is non-verbal and has mental retardation, he uses a communication board to express his wants and needs.

Prior to entering his current district, Aaron was enrolled in Special Intermediate School District No. 916. About four years ago, a teacher in that district approached his parents to ask what they wanted him to derive from the rest of his time in school and beyond. Having placed Aaron in a segregated setting when he was much younger, his mother knew that she didn't want him to return to that type of setting after leaving school.

Consequently, Aaron and his parents started exploring vocational opportunities. While still in District 916, he had two community jobs on a short-term basis. One job was performed one morning per week, the other one afternoon per week. The teacher who first approached his parents did the job coaching on a short-term basis.

Aaron later moved with his family to the district in which he is now enrolled. There his family found no out-of-school work opportunities; in

BEST COPY AVAILABLE

fact, the district did not have a vocational coordinator for the senior high Trainable Mentally Handicapped (TMH) Program. Aaron's parents found themselves in the role of advocates. His mother received valuable information on vocational issues from PACER Center (Parent Advocacy Coalition for Educational Rights). Through their efforts, a TMH vocational coordinator was eventually hired, and later assisted the parents in resolving problems with Aaron's Individualized Education Plan (IEP).

During his first year in Anoka-Hennepin Schools, Aaron worked shredding paper at a local hospital. This situation, however, did not work out for Aaron. Later in the fall of 1990, Aaron began another job at Bunker Hills horse stable. He had a job coach, worked one hour per day two days a week, and earned minimum wage. He was the only supported employee on the site.

Supported Employment Development and Placement

Job development for Aaron presented considerable challenges. Aaron orients well and knows where everything is in his immediate environment, but he is also quite distractible. As his parents state, "Once he knows a job, he knows it forever," but he has problems coping with change.

The process of job development, placement, and providing on-going support presented Aaron and the district vocational staff several significant obstacles. Concerns about his response to working with the public were compounded by his balance problems and limited communication skills. Trying to show he could be successful, and persevering despite the stigma of his disabilities, were significant challenges to be faced along the way.

Supported Employment Position

Aaron started a new supported employment job in January, 1991, stocking shelves in a local supermarket. He is still in an individual placement and works one hour per day, two days per week. Time on the job is expected to increase gradually during his current school year; the rest of his day is spent developing other functional community skills. His fellow employees have been very supportive; in fact, training has been provided for them as well as Aaron, to promote the full inclusion of Aaron into his new work environment. During this past summer, the school district and the local Jobs and Training Partnership Act (JTPA) office provided or funded transportation, wages, and job support to allow Aaron to work with another student putting clothes on racks and other tasks at a Salvation Army clothing store.

Supported Employment Outcomes

Aaron's current job experience at the supermarket has had an impact on many parts of his life.

- Social Behavior

Aaron is learning to discriminate between appropriate and inappropriate times to socialize and to make more eye contact while socializing. He has developed new friendships and gained self-confidence.

- Vocational Skills/Productivity

Aaron's work skills and productivity are at the highest level they have ever been at any of the numerous community jobs he has had.

- Other Outcomes

There have been other less tangible benefits as well. Aaron is excited when he knows he is going to work. He has opened a savings account, and has bought himself a jacket. On payday he deposits his paycheck, setting aside some money to go to the grocery store and purchase what he wants.

Future Supported Employment Needs

Looking toward the future, Aaron's parents and school support staff are seeking other outcomes as well. They want him to gain experiences and develop some job-specific skills to aid in his future vocational planning. They also want to find out "what Aaron is all about" by observing his strengths, needs, and limitations outside the school setting. Finally, they want him to avoid segregated placement in the future.

Aaron has relatively few years left in the public school system. As he, his parents, and school staff think about his transition to adult life they are facing several key issues. One problem is that he will probably not be afforded one-to-one job coach support forever, due to the cost of such services. At some point he will likely be offered an enclave placement with a job coach and one or two compatible, supported coworkers. His parents express concern about this type of supported work model. They are confident he will make gains if sufficient support is available. But in a situation of too little support, they fear he will just "sit in a corner and do nothing." One way of overcoming this potential difficulty is to involve other community service agencies in planning for his transfer from school.

Over the next few months and years, Aaron will need the opportunity to explore job areas and to continue developing vocational and social skills. Specifically, his parents want to increase the amount of time spent in community jobs. His parents have a four-year plan for him which focuses on looking at jobs that incorporate his likes, dislikes, and needs.

Aaron's parents and school district support staff offered their recommendations for future changes regarding supported employment for students with severe disabilities. One suggestion was that students need more time to explore vocational opportunities and interests. Both parents and staff fear that very capable students continue to be placed in segregated employment sites after graduation because they haven't had the chance to sample enough jobs to find something for which they show a preference or proficiency. They also suggest that school districts need to increase their support to vocational programs for students with special needs, and that the conflict between labor law restrictions and the need for expanded job exploration opportunities be resolved.

■ Dustin

Work and school are combined for 20 year old Dustin. He attends the Anoka Technical College's program for 18-to-21 year old and works part-time in the school's kitchen. There Dustin has learned the skills necessary for his current employment in a community fast-food restaurant.

Background

Dustin lives with his parents. According to those who know him best, he is "very social, very friendly, and fun." His speech is limited, but he will point to something he wants or simply get it himself. He has also been described as "perceptive," cautious," and "a perfectionist." Dustin can dress and enjoy meals independently, but needs regular supervision on a daily basis. He loves music and watching any kind of sports on television.

Two years ago, while Dustin was attending Blaine High School he began participating in a special work program at the Anoka Technical College. During his first year his work experience was in the school kitchen, doing non-paid work such as folding napkins and vacuuming. During the last quarter of that year he was offered paid work, carrying trays in the kitchen of an area high school.

Supported Employment Development and Placement

Job development and placement for Dustin was challenging. His rate of learning and work productivity required a subminimum wage to provide him the flexibility of learning the job at his own rate, and a job coach to provide ongoing supervision. His current job is his first community employment experience and he was naturally apprehensive about it. After a few weeks, however, things were fine as he continued to experience success. A remaining challenge to this placement is the distance he travels between school and work. It takes 50 minutes one-way, a problem aggravated by his fear toward riding on buses and being in stormy weather.

Supported Employment Position

At the beginning of the 1990-1991 school year Dustin went to work in the Anoka Technical College kitchen, learning the skills necessary for employment in a community fast-food restaurant. This restaurant was originally suggested by another work coordinator, who had placed students at the restaurant for several years. Dustin started working at the restaurant shortly after the school year began.

According to his parents and school staff, the restaurant management and employees have been very supportive. He washes tables, sweeps floors, and refills the condiment containers. He works 11:00 a.m. to 1:30 p.m. five days a week, has his own job coach, and earns minimum wage. The rest of his school day is spent at the college's program, honing his kitchen skills, participating in a "work seminar," and performing subcontracted work.

Supported Employment Outcomes

- Social Behavior

Dustin's job has had a strong impact on him and has opened many social opportunities. The main outcome originally sought for him was socialization and social acceptance. Much more than that has occurred. He has excellent rapport with the restaurant's customers, coworkers, and managers. He is regularly approached by them and given positive feedback.

- Vocational Skills/Productivity

Dustin is proud of what he does, especially when he brings his paycheck home. Although he enjoys his wages, it appears that it is not the money that is as exciting as the idea of getting a paycheck just like everyone else. He has improved his productivity and speed on one particular job task by 20%, far exceeding his original goal of a 10% improvement.

- Other Outcomes

His work coordinator reports that work has come to mean more to Dustin than she or Dustin ever thought it would. Dustin's mother reports that in the morning he is openly excited about going to work and school.

Future Supported Employment Needs

Dustin has one more year in the public school system. During the coming year, his parents and teachers would like him to explore different job and placement opportunities to help ease his transition into the adult day service world. Specifically, they would like him to try work in a job station or enclave, a supported employment model that allows for 4 to 6 employees to work in a community setting under the supervision of a single job coach.

Dustin's mother has been in contact with his county social services case manager and vocational rehabilitation counselor regarding options for community employment after graduation. The presence of a new service provider in the county has brought about some uncertainty regarding Dustin's future employment options.

When asked about desired changes in the supported employment system, Dustin's work coordinator said she would like to see more continuity from school to adult day services, especially with funding and support for individual placement. His parents stressed the need for formal and regular communication from school representatives when establishing work opportunities and preparing for transition from student to adult living.

3. Profiles:
Supported Employment Through a Regional Treatment Center.

The following three stories describe the process of finding and maintaining employment for three residents of Moose Lake Regional Treatment Center who had not previously participated in community employment. Their profiles reflect the complexity of services needed to provide such opportunities to persons with developmental disabilities and challenging behaviors in a rural Minnesota setting.

■ Stephen

For the past four years, 45-year-old Stephen has been successfully integrated into a supported employment setting doing janitorial duties in a electrical cooperative. Due to his progress with this current employment and his success with this job, his duties at his residence site have been expanded to include dietary aide and janitorial work.

Background

Stephen lives in a residential facility serving 260 individuals (20% of whom have developmental disabilities) located in a rural area of Minnesota. He lives with 11 other people and shares a bedroom with one other person. The staffing ratio for this unit is three staff for every 12 residents. He has lived at this residence since the age of 23. Prior to that he had lived in a variety of institutions. He was placed in a foster home at age five, then returned briefly to his parents before being placed, at the age of 10, in an institutional setting for persons with mental retardation.

As a child, Stephen had difficulty in kindergarten due to a high incidence of hyperactive, aggressive, and destructive behavior and a severe speech defect. Today he is fully independent on all self-care activities and many domestic tasks. He has good receptive and expressive communication skills. He can also read and write the alphabet, recognize a small number of sight words, and tell time to the half hour. On Fridays, as part of his program, Stephen picks up his check and deposits it in his account, keeping a small sum of cash for personal use. He can recognize coins and bills, count, and use a calculator for simple addition. His current vocational goals focus on increasing his productivity.

Prior to placement in supported employment, Stephen received services at a day training and habilitation program (DT&H). His vocational training program centered on making beds in another residential apartment, which he performed for the first 75 minutes of each day.

BEST COPY AVAILABLE

Supported Employment Development and Placement

At the time of Stephen's placement into supported employment, the Moose Lake RTC had little experience with employment in community sites. The rural area where he lives has a relatively high rate of unemployment. Therefore job openings were limited and often seasonal. To address these issues, a public relations effort in the local area was undertaken to open up potential job sites. Technical assistance was initially provided by the Minnesota Supported Employment Project (MnSEP) in the areas of job development and job placement.

Several other major challenges had to be overcome in finding and developing a job for Stephen. Since he exhibits a high frequency of a variety of challenging behaviors, MnSEP also provided funds for additional on-the-job supervision. This enabled the job coach to effectively help Stephen with his challenging behaviors in the community in a manner which was not stigmatizing to Stephen or upsetting to others.

To further ensure success, MnSEP staff provided technical assistance in the development of job task analyses and a data collection system. This made systematic instruction less complicated and more rewarding for both Stephen and his job coach. Stephen also received training in personal appearance and hygiene to further enhance his integration into the worksite and the surrounding community.

The job development strategy included identifying jobs, assessing how well the identified job and its necessary skills matched with Stephen's abilities and interests, and special considerations such as how well the site could accommodate additional supported employees. This process was critical since a good match meant that Stephen would be more likely to enjoy the job and learn the skills quickly. This, in turn, meant that his skill deficits and behavioral challenges on the job could quite possibly become less significant and that job coaching resources could be more easily reduced.

Supported Employment Position

A rural electrical cooperative was the site of Stephen's first supported employment job. The electrical cooperative building contained offices, a large meeting room, equipment rooms, and a large garage.

The first task Stephen learned was sweeping the garage on a daily basis. Once this was mastered, an additional job of vacuuming vehicles was added. This is performed when garage sweeping is not possible, or when Stephen finishes sweeping early. As he became proficient in vacuuming vehicles, two additional jobs were added: sweeping and mopping the office and hallways. These jobs are done together on the same day.

Initially, Stephen was placed on the job with two job coaches and two other residents from the Regional Treatment Center. During the next year several different combinations of job coaches and coworkers were attempted, but his work assignment and supervisory needs remained relatively stable.

A least-to-most intrusive prompting system with a task analysis format was used to teach the job skills required. For each step Stephen was

presented a cue to perform the step—either a verbal cue to begin, or the act of completing the previous task. If he did not initiate the step independently within five seconds, he was given first a gestural prompt to complete the step, and later, if needed, a verbal or physical prompt to complete the step. He was given behavior-specific positive feedback for performing each step.

A work-site behavior management procedure was developed for Stephen. From 9:30 until noon daily, Stephen would receive behavior-specific positive feedback and a dime for every 15 minutes of working without displaying the target behaviors of agression, self-injury or their precursors. If target behaviors occurred during training, a six-step hierarchy of increasing redirection was used. Twice a day he received an opportunity to buy a refreshment if he had earned all of his possible reinforcers.

Supported Employment Outcomes

- Vocational Skills/Productivity

  Stephen learned the specific job routines quickly. Within six weeks he was working without supervision at sweeping the garage. He went from doing a quarter of the steps independently to 90% of the steps by the fifth training session. He is also currently doing 90% of the mopping and sweeping the hallways and lobby independently. While there were fluctuations in his performance of each of these jobs, his performance maintained at high levels of independence at a six-month follow-up. Initially, Stephen's pay rate was $1.07 per hour. Presently, he earns $2.21 per hour.

- Working Environment/Behavior

  Stephen showed improvement in several areas related to his problem behaviors. The frequency of precursors to aggression or self-injury decreased from 0.86 per day prior to placement to 0.04 per day, two and one-half years after placement. The aversive/deprivation program and the medication for his problem behaviors have been dropped since his placement in supported employment.

  There were significant changes in staff's behavior during Stephen's first year of employment. The proportion of time staff spent on training Stephen increased from 3.1% to 7.5%. The proportion of time staff spent interacting socially or recreationally with him increased from 2.3% to 4.5%.

  There was also a change in Stephen's social behavior. His positive initiations to staff (e.g., greeting someone, asking for help) increased from 2.4 per hour prior to getting a job, to 10 per hour one year after becoming employed.

- Survey

  An attitudes and integration survey conducted with agency staff members before placement and one year following placement revealed notable changes in several different aspects of Stephen's life:

- Prior to supported employment placement, Stephen "rarely or never" had contact with non-disabled persons (other than paid caregivers) during his daily activities. One year following his placement, such contact was reported as "frequent."

- Staff reported Stephen making more visits to restaurants than he had prior to placement.

- When asked about the importance of various training options, the staff respondents rated leisure and domestic skills as less important on the followup survey than on the initial survey, while the opposite was noted for vocational and community skills training.

- Prior to placement in supported work, staff disagreed with the statement that "Stephen's involvement in the proposed supported employment will result in him maintaining a neater appearance." On the followup survey, all respondents agreed with the statement.

• Program Goals

One year after placement in supported employment, Stephen's new Individual Program Plan had four goals with two based on his supported employment: to reduce the frequency of his challenging behavior and to increase his pay rate. His in-center vocational assignment was expanded due to his success on the job at the electrical cooperative. A job as a dietary aide and janitorial worker in his residence was added. Such changes indicated positive improvements in services being provided to Stephen. These goals now require performance in actual situations within his community in the presence of persons without disabilities. His training was designed to be closely related to natural corrections and consequences, with new skills being instructed in actual community environments.

• Other Outcomes

The impressions of Stephen's job support staff, coworkers, and staff of the Minnesota Supported Employment Project provide some interesting insights. Several respondents noted an increase in his contact with persons without disabilities and improvement in his job skills, social skills, and ability to communicate. Several of Stephen's coworkers reported being impressed by the quality of his work.

Future Supported Employment Needs

There are several factors that could have a significant impact on Stephen's future in supported employment. One potential obstacle is the need for extended funding support for job coaching and transportation to and from work sites. Another obstacle is the need for extended hours of employment, now restricted due to staffing issues, to increase the amount of time he works in supported employment. To overcome these obstacles, Stephen needs commitment and funding from the administration of his residential facility, a continuing compatible job site, and trained job coaches.

■ Louis

Currently, 26-year-old Louis works three supported employment positions. At a tree farm and at a nursery he works as a grounds laborer doing a variety of tasks. During the winter months he is a custodian at a rural hockey rink.

Background

Louis lived with his parents until he was 16, when it became too difficult for his parents and teachers to manage his behavior at home and at school. He lived in several different facilities before being moved to his current residence in rural Minnesota eight years ago. He lives in an apartment with 11 other people and shares a bedroom with one other person. The staffing ratio for his unit is 3 staff to 12 residents.

Louis enjoys a variety of activities, including swimming, ice skating, cross-country skiing, bowling, and trampoline. He also enjoys listening to music, watching TV, and going for walks. He can follow two-step directions and responds to his name. He is able to express his basic wants and needs and label some common objects and pictures.

Supported Employment Development and Placement

Prior to starting his supported employment job, Louis worked in his residential facility washing tables and working with a facility grounds crew. Both jobs paid $1.42 per hour and he averaged one hour of work per week. He had several vocationally-related goals included increasing adaptive behaviors, reducing problem behaviors, and improving his social, communication, and vocational skills.

There were three major obstacles to Louis' success in supported employment. He did not have many vocational skills, and had shown low interest with a short attention span for vocational tasks. He also had a history of problem behaviors, including aggression and self-injury. Through assistance from the Minnesota Supported Employment Project, funding was provided for an increased staff-to-worker ratio (one staff to one or two workers), to insure that someone would always be with Louis to train, prompt, and reinforce his work behavior. This higher staff ratio also made it easier to consistently implement the behavioral procedures which had been developed specifically for his worksites.

Louis' high energy level required employment that allowed movement, high levels of physical activity, and could preferably be performed outdoors. Job developers had outstanding success in finding three jobs that required considerable standing and walking.

BEST COPY AVAILABLE

Supported Employment Position

Through supported employment, Louis participates in three different jobs. He works as a grounds laborer at a tree farm for approximately three hours per week, at a tree nursery for about six hours a week, and as a hockey rink custodian for two hours per week during the winter months. All three job sites are located away from the residence and involve working in settings away from other people. A citizen's band radio was acquired to meet work site emergencies.

At the tree farm Louis is responsible for stacking, dragging, and unloading brush. For this job, he needs to put on an appropriate uniform, including a hardhat, safety glasses, and insect repellent. His job responsibilities include using a rope to pick up and bundle branches and other brush, dragging these bundles to a dumpsite for disposal, and returning with the rope to the worksite to repeat the procedure. At the tree nursery the job responsiblities are similiar, except he also prunes trees and rakes. At the hockey rink, Louis picks up and disposes of trash. His responsibilities at both the tree farm and tree nursery are shared by another supported employee, under the supervision of one job coach. Louis was the only supported employee at the hockey rink.

Since there is minimal contact with nondisabled individuals at his job site, Louis and his job coach stop at a local restaurant daily at the end of a job shift. He is thus able to interact with nondisabled individuals. With his reinforcement earnings he is able to purchase coffee, cookies, or pop or to play video games.

Supported Employment Outcomes

- Vocational Skills and Productivity

One year after placement, Louis earned an average hourly rate of $1.74 at the tree farm, $1.31 at the tree nursery, and $1.26 at the hockey rink.

- Social behavior

Louis' rate of positive responses to staff increased from 3.9 per hour before supported employment placement to 10.5 per hour one year after placement and his rate of negative responses to staff and peers dropped from 5.2 an hour to 0 per hour. There was no change in his social interaction with persons without disabilities since there were few opportunities for social interaction at the tree farm, and only slightly more at the tree nursery or hockey rink. He did develop an important friendship with one of the waitresses at the restaurant he stopped at after work.

- Staff Behavior

There were several changes noted in staff behavior toward Louis. Prior to employment and one year after placement the proportion of time staff spent in recreation and social interaction with Louis went from 2% to 5.8%. The proportion of time spent on custodial care went from 0.7% to 5.0%. This increase reflects the fact that bathroom facilities were farther away, especially at the tree farm, and that Louis did not have many self-

care skills. The proportion of time spent on training decreased from 16.3% to 4.2%. This likely reflects the fact that Louis had been on the job for a year and was considerably more independent than he had been during the first months of placement.

- Other Outcomes

Job support staff, coworkers, and staff from the Minnesota Supported Employment Project offered many interesting impressions of Louis in supported employment. They perceived that Louis enjoyed the physical aspects of the job, learned specific job skills (e.g., pruning), minimized his problem behavior outbursts, increased his communication skills (primarily his vocabulary), and increased his social skills with others outside of the opportunities available at the job. Coworkers, who were initially uncomfortable with his idiosyncratic behaviors, gradually became more comfortable with Louis.

Future Supported Employment Needs

One potential challenge to Louis' continuing involvement in supported employment is finding time for a job coach or other job support staff to enhance and promote the community integration aspect of Louis' job. Another potential obstacle is the need for extended funding support for job coaching and transportation to and from work sites. As was the case with Stephen, to overcome these challenges Louis needs a commitment to supported employment and funding from the administration of his residential facility, a continuing compatible job site, and trained job coaches.

■ Bruce

Although 38-year-old Bruce is currently unemployed, his experience with supported employment has helped address issues that will help make future placements for him and others more successful.

Background

Bruce has been living at his current residence in rural Minnesota for almost 20 years. Formerly he lived with his family, then at a residence for children, and then at another large residential facility.

He has many health problems including diabetes insipidis, hypertension, bladder and kidney damage, a convulsive disorder, and a mild balance problem. He also has a history of severe problem behaviors, including aggression, property destruction, and self-injury.

He follows one-word directions and familiar two-word directions. His speech is limited to two- or three-word phrases that are comprehensible only to those who know him. Bruce also communicates with a choice-making book that incorporates color cues and photos in order to increase initiation of activities.

While he does not independently initiate leisure activities, he does enjoy walks, painting and puzzles. Bruce can independently complete numerous grooming and personal hygiene activities. He makes his own bed, wipes off tables, puts trash in the garbage, and places his dirty clothes in a hamper.

Supported Employment Development and Placement

Prior to his placement into supported employment, Bruce spent the day in a day training and habilitation program (DT&H) classroom that served 12 people. There he received one-to-one staff supervision at all times, due to the nature of his disability. Bruce's main vocational activity was washing mats in the gym for 20 minutes a day. He earned an average of 87 cents an hour for this job. Bruce had three vocationally-related goals at this time: increasing adaptive behavior and decreasing maladaptive behavior; increasing social skills; and increasing his wage rate for washing mats. His prior duties included dishwashing, sweeping, preparing areas for cleaning in the classroom and his residence, and folding forms.

Because of his health problems, Bruce needs a sedentary job in a comfortable environment with short work days. The job support staff found him a job in a local hardware store as a stock and clerical worker. His primary responsibility was to label and relabel paint cans. These responsibilities were carried out in the basement of the hardware store. Bruce began his employment with two job coaches, which was later reduced to one due to the limited work space. He worked an average of 7.5 hours each week and earned, on average, $1.31 an hour.

The most serious challenge to Bruce's successful employment was his problem behaviors and the procedures used to reduce them, which caused Bruce to draw undue attention from coworkers and customers of the store.

Prior to job placement, two procedures were used to handle these behaviors: an intervention in compliance with a state regulation overseeing all intensive behavioral modification programs (Rule 40), and a facial mask to prevent biting of others.

At home and at the DT&H, the Rule 40 program was used if all other procedures to prevent the problem behaviors were unsuccessful. Since this procedure could not be used in the community, an alternative behavior management program was designed for the job site. For those situations where the program would have been used, Bruce was escorted outside.

The facial mask, which covered the lower part of his face, was used at the job site. This mask was considered a major barrier to social integration.

The location of Bruce's worksite also posed considerable challenges in light of his health and behavior. Procedures for medical and behavioral emergencies were developed by Bruce's job support staff. This was a particularly crucial area since there would only be one professional staff member with Bruce on the worksite.

Supported Employment Outcomes

Even though various challenges were successfully met by Bruce's support team, they proved to be insufficient in overcoming the one challenge which ultimately cost Bruce his job after nine months: high work expectations. The requirements of the position made it imperative for Bruce to be more independent in a shorter time than proved possible. His position demanded a rigid schedule, with set hours and work that needed to be done on time. His limited vocational skills, and medical and behavior problems made it extremely difficult to continually meet these requirements.

Bruce's premature departure from his job meant that the measures taken prior to placement were not repeated. The stigma of his problem behaviors and the procedures used to reduce them appeared to have a negative effect on his worksite socialization, as only one person out of six co-employees reported feeling comfortable when approaching Bruce. Nevertheless, general impressions revealed that the hardware store staff felt he had benefited through his exposure to new people and places. The staff also felt confident that the experience whould help Bruce and his support team the next time he is provided an opportunity to work in the community.

Future Supported Employment Needs

There are several considerations in attaining and retaining a new supported employment job for Bruce. He needs a flexible and compatible job site close to his residential facility. His deteriorating health is also a significant problem. Bruce's needs include commitment and funding from the administration of his residential facility, trained job coaches, and flexibility to deal with his health and behavior problems.

4. Profile:

Supported Employment Through a Rehabilitation Facility.

Supported employment is not limited to persons with developmental disabilities. The underlying philosophy of this service model is based on the unique characteristics of the individual worker, not on any specific type or severity of disability. The following profile illustrates the process of supporting the employment of an individual with mental illness.

■ Greg

Greg is a man who is careful in describing himself and his background. He portrays himself, first and foremost, as a "good person" and someone with "above average intelligence" who has had some bad luck in the past. While this past misfortune was often related to problems exacerbated by his mental illness, he nevertheless feels assured that his luck has started to change. Through the assistance of Minnesota Mainstream and his mentor, Greg is currently employed with a biomedical project.

Background

Greg graduated from college with a bachelor's degree in electrical engineering. After graduation he went to work for a major Minnesota computer corporation, but he left after about four or five months on the job. As Greg puts it, he "burned himself out."

When he first met his Division of Rehabilitation Services (DRS) counselor, he had left his job with the computer company and was living in a nursing home. Greg wanted to go back to work but he had no goals, self-motivation, or direction and was not considered to be a good candidate for employment.

As a first step, it was suggested Greg enroll in two classes at the University of Minnesota: astronomy and physical conditioning. The DRS counselor was worried about setting him up for failure, but these classes proved to be a major turning point. Greg remembers being happy when he received a 'B' in his astronomy class.

The next step in his rehabilitation process involved an extensive search for potential employers. Eventually, his county social worker helped him secure a job as a library technician with the Army Corps of Engineers. Initially, Greg spent a lot of time calling his DRS counselor and talking to his supervisor and coworkers about how the job was too difficult for him. In retrospect, such actions seemed to reflect his initial insecurity about his ability to perform the job.

Greg was soon hired by the Corps to work as an engineer; he stayed in the job for over nine years, increasing his rank from 'GS-4' to 'GS-10' status. During this period he contacted his DRS counselor about once a

year during particularly difficult times; once or twice a year such critical periods would result in his temporary hospitalization. About two years ago, he called DRS again, but this time to inform his counselor that the Corps had decided to terminate Greg's employment, stating that they needed more consistent productivity from him. His counselor suggested some alternative actions, such as moving him to a different job classification, but Corps officials were unable to arrange this option. Although the Corps negotiated with him to establish a pension, this process proved difficult for Greg, because it was necessary to emphasize the debilitating effects of his disability in order to receive this benefit.

Supported Employment Development and Placement

At this point, his counselor began providing case management services for him at a much greater intensity. This period of time was difficult for everyone concerned. The following are the many challenges Greg faced in securing and maintaining a new employment position:

- Lack of confidence about securing and maintaining employment.
- Lack of goals, motivation, direction.
- The negative effects of his disability hearing.
- The possibility of hospitalization once or twice annually.
- Medication, which makes him tired and limits the amount of time he can work without serious detriment to his job performance.
- Problems in his past, both personal and professional, and the stigma placed upon him as a result of these problems.

During this difficult time, his counselor introduced him to a service called *Minnesota Mainstream* (a program administered by Rise, Inc., a metropolitan rehabilitation facility.) This program started in the late 1980's by an individual with a Ph.D. in physics who had developed schizophrenia. The program was created because this individual knew firsthand the incredible difficulty of reentering a career after developing a mental illness. The agency requires that potential applicants have a college degree. It is staffed by three specialists, all diagnosed with mental illness, who each serve 12 to 15 individuals.

The main function of the specialists is to link applicants with a *mentor* in their occupational field. Minnesota Mainstream provides support before, during, and after placement. Little direct, on-the-job placement is conducted by the agency since 60% of the participants find jobs on their own or through their mentor. Gayle Martinez, a former placement specialist for Minnesota Mainstream, said that the goal of the program is to "nurture" and provide an opportunity for "healing." Funding for Minnesota Mainstream is provided through a grant from the U.S. Rehabiliation Services Administration under their Innovative Programs Area. Nationally, it has become a unique and emulated program.

Greg's mentor was an electrical engineering professor at the University of Minnesota. Greg went to his classes once a week and did projects with other students. This aided him to realize the he was as fully capable and knowledgeable as the other students.

Supported Employment Position

His mentor introduced him to potential employers. Greg was hired by one of these employers to work part-time on a biomedical project involving computers and electrical engineering. Due to Greg's physical limitations from his medication this part-time position works well. His counselor feels strongly that Greg's mentor has had an extremely positive influence on his client. Greg describes his mentor as "a darn good person."

Supported Employment Outcomes

Greg, and the people around him, sought several outcomes from his employment. His vocational rehabilitation counselor sensed a strong work ethic within him. Greg himself has sought employment because of the sense of prestige and pride that comes with having a job. Since he is receiving a disability pension, wages are not a major factor. In fact, he reported losing some of the disability benefits because of his desire to work.

Greg's present job has had a major impact on his life. His vocational rehabiliation counselor reports that his social skills have markedly improved, and that he now finds it easier to appreciate what others are doing to support his employment. Greg says that events in his life have turned around a great deal, especially since his involvement with his mentor. He reports that Minnesota Mainstream has given him hope, respect, and improved self-esteem. Another important outcome was that he developed enough trust in his support professionals to say, "If you think I can, I'll do it."

Future Supported Employment Needs

There remain obstacles in the future for Greg. Gayle believes that Greg will continue to need numerous people in his support network because of occasional "flare-ups" when he needs to talk to someone. She says that he will continue to need an understanding employer, as he will probably need hospitalization once or twice annually for the foreseeable future. Finally, she says that his DRS counselor's continuing involvement with him is very important because of the supportive and long-term nature of their relationship.

His vocational counselor adds that one good sign is the satisfaction of Greg's employer with his work. He stresses that communication is an important element, so the people around him are working with him and each other to help prevent or minimize some of the problems he might face in the future.

What are Greg's hopes for the future? He says he just wants to "make my mark by being a good person." He wants to feel that because he was here, "the United States and the world was a better place." He would like financial security, and would like to take college courses in physiology this fall to investigate training in becoming a biomedical engineer.

The support professionals that offered assistance to Greg in reaching his goals hope that programs like Minnesota Mainstream will continue to

flourish. Because federal funding will be ending this year for the project, Rise, Inc. administrators are actively seeking other state and county funding sources. Also suggested was the offering of an additional service component which could provide medical supervision for his medication and general health. Providing regular "check-in" follow-up services to employers and offering social work services to help teach adaptive skills were two additional improvements suggested for the present rehabilitation services system. From a consumer's perspective, Greg expressed hope that human service agencies like the Division of Rehabilitation Services will remain adequately funded, and that there can be more support given to programs like the one which has assisted him in his search for a better quality of life.

Conclusion

For all of us, regardless of ability or need, a major part of our identities is found in the work that we do. Unfortunately, for many persons with severe disabilities, the opportunity to contribute to and benefit from meaningful employment has long been denied.

The preceding profiles reveal a diversity of individual characteristics, job opportunities, and employment outcomes. The underlying theme across these profiles is the simple yet powerful idea that persons with severe disabilities can and should have a chance to develop a greater sense of themselves through their vocational experiences in their home communities.

But who are the real winners in supported employment? Not just those persons with disabilities who participate in the experience, but everyone. Providing such opportunities benefits all of society by bringing a new awareness of the contributions and capabilities of all our citizens.

1. Appendix:
Evaluation Process

The process used to evaluate the impact of supported employment on the individuals profiled in this booklet consisted of the following five steps:

Step 1: The first step in the evaluation was to review similar supported employment demonstrations and evaluation strategies. While most of these projects provided interesting findings and results, there were several important omissions:

- Most supported employment projects served persons with mild to moderate disabilities and excluded persons with severe disabilities.
- Descriptions of the individuals being placed were not sufficiently comprehensive for understanding programmatic and job development strategies.
- The job development process leading up to job placement was often insufficiently described.
- Most evaluation strategies concentrated on quantitative outcomes (e.g., pay rate, productivity levels) while indirect outcomes such as improved community living skills or expanded social networks were not examined.
- The impact of placement into supported employment on the employee's peers, friends, parents, job coaches, coworkers, and the agency itself was usually not examined.
- Procedures for skills acquisition and reduction of problem behaviors were not described in adequate detail.

Step 2: The second step of the evaluation process was development of methods to address the preceding omissions:

- Evaluation efforts would concentrate on supported employment services for persons with severe disabilities. The individuals identified for inclusion in the evaluation can be said to collectively represent at least four different subgroups, with each group challenged by differing disabilities and served by alternative service delivery systems.
- Sociometric data covering many aspects of the participants' lives was collected.
- In the case of five of the participants, Institute on Community Integration staff were involved before job development started and kept in regular contact during the job development process.
- The participants' general social and adaptive skills were examined.
- Evaluation strategies addressed the effects of placement on job coaches and other program staff, service agencies, peers, coworkers, family members, and the interdisciplinary teams supporting each participant.

- Full descriptions of each job, training procedures, and strategies for handling problem behaviors were collected.

Step 3: The third step in the evaluation process was constructing a list of all possible areas which could be affected by a person's movement into supported employment. Initially, sociometric and demographic information such as age, gender, vocational history, and level of adaptive skills was collected to provide a detailed description of each individual project participant. Decisions over the types of additional measures were guided by the following questions:

- Could the shift from being a passive recipient of services to being a paid employee cause the participant to be viewed differently by the staff supporting that person?
- Does placement into supported employment result in greater normalization and more emphasis on community experiences for the participant?
- Does supported employment provide participants opportunities to increase job-related adaptive skills and skills in broader areas such as self-care and communication?
- Does movement from an adult service agency or classroom to a supported employment situation produce changes in the participants' levels of problem behavior and provide opportunities for behavioral modification of these behaviors?
- Does a participant's interaction with persons without disabilities increase with their movement into an integrated employment environment?
- Do the attitudes of parents, service agency staff, and other significant individuals toward the participant and toward the ideology of supported employment change with the changes in the individual participant's life?

Step 4: To answer the questions raised in the preceding step, measures and procedures were developed to:

- Observe and record job support staff behavior such as teaching, modifying problematic behavior, and delivering custodial care.
- Examine the participants' instructional goals, objectives, and training procedures to look for changes within the Individual Program Plans, especially in relation to normalization and community instruction.
- Assess the participants' general and job-related adaptive skills as well as skills in other areas such as communication or self-care.
- Assess the frequency and intensity of the participants' problem behavior.

- Observe and record the participants' social behavior.
- Examine attitudinal changes.

Step 5: For a selected number of individuals included in this evaluation, data collection in these areas occurred prior to placement in supported employment and one year after placement. For these individuals, the job coach also recorded data on job performance, pay rate, and frequency of problem behaviors. For other individuals featured within the evaluation, a retrospective approach was taken in collecting information from the individual, family members, case managers, teachers, job coaches, and other informed parties.

2. Appendix:
Materials & Procedures

During the three months prior to and one year after placement in supported employment, data was collected using the following measures. All data collection during this phase was conducted by a graduate student in the Department of Educational Psychology at the University of Minnesota.

Demographic information

The individual's permanent file, including current and past IPP's, was reviewed to obtain information on age; sex; race; parent/guardian name and address; level of intellectual functioning; primary and secondary disability; general health status; OT/PT concerns; receptive and expressive language abilities; vision and hearing status; results of standardized assessments; educational and day program; residential history; social history; current IEP/IPP goals; and current status of problem behaviors and skills in self-care, domestic, vocational, social, perceptual-motor, and academic areas.

Staff behavior

Procedures and definitions were adapted from Seys and Duker (1986). Staff behavior was coded as fitting into one of six categories:

1. Routine custodial care: daily resident care (e.g., feeding, washing, toileting, dressing, transferring, positioning, brushing teeth, etc.) without active resident participation.
2. Stimulative custodial care: same as routine custodial care but with active resident participation.
3. Training: any activity in which systematic prompting and reinforcement are used.
4. Correction of maladaptive behavior: application of consequences for an excess behavior.
5. Recreation/Social: interacting with the resident in a manner other than those previously listed, e.g. playing with or talking to a resident.
6. Not engaged: no staff member is interacting with the resident.

Fixed-interval five-minute momentary time sampling was used. Starting at the beginning of the day, every five minutes the observer looked at the subject and noted if a staff member was interacting with the subject. If a staff member was interacting, the behavior was coded as one of the first five behaviors. If no staff member was interacting with the subject, "not engaged" was checked and the observer recorded what the subject was doing at that time. Sampling was done across the duration of two program days (8:45 a.m. to 2:45 p.m.). This instrument yields information on the percentage of time spent by staff with the subject across categories.

The reliability observer, another graduate student in educational psychology, had previously been trained to 95% agreement using a differ-

ent subject. Both observers sat apart from each other, but near the subject. Each observer had a stopwatch that had been started at the same time. An agreement was scored if both observers scored the same category for a given interval. A disagreement was scored if the observers coded different categories.

Value-based service indicators

The value-based service indicators form consists of 20 questions, 10 about features of the IEP/IPP (e.g. "Does the IEP/IPP include objectives to develop social skills") and 10 about instructional strategies (e.g.,"Are new skills instructed in actual community environments"). Each question can be answered "yes," "no," or "other." Space is left after each question for additional comments. The final set of questions were derived from a larger pool of questions in Meyer (1985). From these questions, any questions that were not applicable to both DT&H and supported employment settings, or were not applicable to adults, or not readily observable (e.g, questions about program philosophy) were eliminated. Any questions that were rated low in importance were similarly eliminated.

Each question was answered based on a review of individual's most recent IPP. Questions which referred to all IPP goals (e.g. "Are new skills instructed in actual community environments?") were answered "yes" if it was true for at least one of the goals. This measure yields qualitative information about the strengths and weaknesses of the IEP/IPP and a number between 0 and 20, with higher numbers reflecting increasing service quality.

Adaptive behavior

General adaptive behavior was assessed using the Scales of Independent Behavior (SIB) (Bruininks, Woodcock, Weatherman, & Hill, 1984). The SIB is a comprehensive measure of functional independence and adaptive behavior in motor skills, social and communication skills, personal living skills, and community living skills. It consists of 226 questions divided into 14 subscales. Each question is a rating, from 0 (never or rarely) to 3 (does very well) of a subject's independent performance on a task. This yields scores and age-equivalences for each subscale and scale and a overall score and age-equivalence. The SIB was administered by a staff person with at least one year's direct experience with the subject.

Problem behavior

A generalized measure of problem behavior was obtained using the problem behavior scale of the SIB (Bruininks et al., 1984). This scale evaluates eight categories of problem behavior on frequency and severity. This yields four maladaptive indices (internalized, externalized, asocial, and general) that are each given a level of seriousness.

Social behavior

The subject's social behavior was assessed using an observational instrument and a standardized instrument.

Definitions and procedures for the observational instrument were adapted from Strain and Timm (1974) and Strain, Shores, and Kerr (1976). The subject's behavior was coded on who they were interacting with— peers, staff, or other nondisabled people, whether the subject initiated or responded, and whether it was a positive or negative interaction. Initiations and responses were defined as follows:

- Initiations were all discrete positive or negative behaviors emitted by the subject at least three seconds before or after another person's positive or negative social behavior.
- Responses were all discrete positive or negative behaviors emitted by the subject within three seconds after another person's positive or negative social behavior.
- Positive and negative were defined operationally. Positive social behaviors included teaching with hand or hand waving, all cooperative responses involved with sharing an object, and all vocalizations directed towards another person excluding cries, screams, shouts, whines, or other utterances that were accompanied by gestures that indicate rejecting, oppositional behavior. Negative social behaviors included hitting, pinching, kicking, butting with head, "non-playing" push or pull, grabbing object from another person, and screams, shouts, cries, whines, or other utterances that were accompanied by gestures indicating rejecting, oppositional behavior.
- Social behaviors were recorded continuously during the duration of one program day (8:45am-2:45pm), with one minute intervals used for determining interrater reliability. Social behaviors were coded as either positive or negative and as either initiations or responses. The person to whom the interaction was directed — peer, staff, or other non-handicapped person— was also coded. This measure yields frequency information about the social behavior of the subject and the other people in the immediate environment.

The reliability observer had previously been trained to 80% agreement using a different subject. Both observers sat apart from each other, but near the client. Each observer had a stopwatch that had been started at the same time. An agreement was scored if both observers agreed on whether the interaction was positive or negative, whether it was an initiation or a response, and who it was directed towards for a given interval. A disagreement was scored if the observers disagreed on any one of the coding categories.

The Assessment of Social Competence (ASC)(Meyer et al., 1985) was used to obtain a standardized assessment of social behavior. The ASC is a comprehensive measure of social competence functions essential for participation in naturally-occurring activities within integrated community

environments. The ASC consists of 11 categories of social functions (e.g. initiate) with each category made up of eight levels of increasing sophistication. The subject is rated as to whether they have demonstrated the behavior form represented by each level. The ASC is summarized by the highest level obtained by the subject for each category.

The ASC was administered to a staff person with at least one year's direct experience with the person being observed.

Attitudes

This questionnaire was designed to assess parental and staff attitudes towards normalization, the subject's current day placement, employment opportunities for the subject, and the research project, and to gain further information about the subject's activities and contact with non-handicapped peers.

The questions used were derived from the Parent/Guardian Attitude Survey (1981) and the Post-School Transition Study Survey Interview (1987). The questionnaire yields qualitative information about the areas outlined above.

3. Appendix:
References

Bruininks, R. H., Woodcock, R.W., Weatherman, R. F., & Hill, B. K. (1984). *Scales of Independent Behavior*. Allen, TX: Teaching Resources.

Meyer, L. (1985). *Program quality indicators: a checklist of the most promising practices in educational programs for students with severe disabilities*. Syracuse, NY: Syracuse University, Division of Special Education and Rehabilitation.

Meyer, L., Reichle, J., McQuarter, R., Cole, D., Vandercook, T., Evans, I., Neel, R., & Kishi, G. (1985). *Assessment of Social Competence (ASC): A scale of social competence functions*. Minneapolis, MN: University of Minnesota Consortium Institute for the Education of Severely Handicapped Learners.

Parent/Guardian Attitude Survey (1981). Richmond, VA: Virginia Commonwealth University, Rehabilitation Research and Training Center.

Post-School Transition Study Survey Interview (1987). St. Paul, MN: Northeast Metropolitan School District.

Seys, D. M. & Duker, P. C. (1986). *Effects of a supervisory treatment package on staff-mentally retarded resident interactions. American Journal of Mental Deficiency*, 90, 388-394.

Strain, P.S. & Timm, M.A. (1974). *An experimental analysis of social interaction between a behaviorally disordered preschool child and her classroom peers*. Journal of Applied Behavior Analysis, 7, 583-590.

Strain, P.S., Shores, R.E., & Kerr, M.M. (1976). *An experimental analysis of "spillover" effects on the social interaction of behaviorally handicapped preschool children*. Journal of Applied Behavior Analysis, 9, 31-40.